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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,594	05/23/2001	Jorg Rheims	VOI0189.US	9308

7590 07/27/2004

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EXAMINER	
ALVO, MARC S	

ART UNIT	PAPER NUMBER
1731	

DATE MAILED: 07/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

S.C.

Office Action Summary	Application No.	Applicant(s)	
	09/863,594	RHEIMS ET AL	
	Examiner	Art Unit	
	Steve Alvo	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-32* is/are pending in the application.

4a) Of the above claim(s) *20-32* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

This case is an RCE and the restriction requirement was made Final in the Parent Application. The non-elected claims should be cancelled.

Claims 1-11 and 13-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "said additive being $CaCO_3$"is indefinite as the additive can be $Ca(OH)_2$, see claims 15-17. $CaCO_3$ is loaded into the fibers, but it does not have to be the additive. It is not clear if the additive is $CaCO_3$ or forms $CaCO_3$. If it is added as an additive, claim 1 is inconsistent with dependent claim 15.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-11 and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over GREEN et al in view of HANSEN (4,055,903) or CARLSMITH (5,810,973) and further in view of COUSIN etal.

GREEN et al teach adding calcium carbonate solid particles (column 4, lines 59-61) to load paper pulp with the calcium carbonate filler and teaches that the pulp should be subjected to mechanical treatment in a refiner (column 4, lines 3-5) or disintegrator (column 6, lines 33-39). Such mechanical agitation would inherently fluff the pulp. HANSEN or CARLSMITH show that disintegrators ((column 4, lines 54-55) or refiners (column 1, lines 58-59) fluff the pulp. If

the fluffing of pulp is not inherently taught by GREEN et al, then it would have been obvious that the refiner and/or disintegrator of GREEN et al would be fluffing the pulp as taught by HANSEN (4,055,903) or CARLSMITH (5,810,973). COUSIN et al teaches that the calcium carbonate can be loaded into the pulp fibers by adding $Ca(OH)_2$ into the fibers at a stock pH of 12.0 (column 5, lines 27-32) and letting calcium carbonate precipitate on the fibers in situ. It would have been obvious to one of ordinary skill; in the art to form the calcium carbonate of GREEN et al in situ in the manner taught by COUSIN et al. This does not appear to differ from the process taught by Applicant, see claims 15-17 of the instant process and page 1, last 2 lines and page 3, lines 8-11 of the instant specification. Although GREEN et al teaches the fibers may also receive mechanical treatment, such as refining or beating prior to lumen-loading (column 4, lines 3-5); GREEN et al teaches that this mechanical treatment can occur prior to lumen-loading or "during the impregnation stage", see column 6, lines 37-39. Obviously, the mechanical treatment would include the refining of the fibers prior to or "during impregnation". It is also noted that when the fibers are mechanically fluffed in the refiner or pulper prior to lumen-loading, that the intensity of the mechanical aspects of the impregnation steps are increased to overcome the filtering out of lumen particles (column 4, lines 6-10). This increased mechanical treatment would fluff the fibers. It is also noted that the disintegrator is described by GREEN et al as providing mild agitation (column 6, lines 32-34). Since a disintegrator is known to fluff the pulp, see HANSEN, any increased agitation would also fluff the pulp. GREEN refers to the agitation during loading and impregnation as "extensive" (column 6, line35), vigorously agitated (column 4, last line) and of increased intensity (column line 9) when mechanically treated prior to loading, e.g. increased greater than the "vigorously agitated" of column 4, last line. Clearly

the mechanical agitation during the impregnation and loading of GREEN et al would fluff the fibers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Alvo whose telephone number is 571-272-1185. The examiner can normally be reached on 5:45 AM - 2:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Steve Alvo
Primary Examiner
Art Unit 1731

msa